



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/071,072	02/08/2002	Samuel Naffziger	10016631-1	3388
22879	7590	08/31/2005	EXAMINER	
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			MCCARTHY, CHRISTOPHER S	
			ART UNIT	PAPER NUMBER
			2113	

DATE MAILED: 08/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/071,072	Applicant(s) NAFFZIGER, SAMUEL	
	Examiner Christopher S. McCarthy	Art Unit 2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9, 11-13 and 16-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-18 and 23 is/are rejected.
- 7) ☒ Claim(s) 9, 11-13, 19-21 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>response to arguments</u> . |

DETAILED ACTION

1. Claims 23, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robbins et al. U.S. Patent 6,067,633 in view of Beffa U.S. Patent 6,703,573.
2. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robbins in view of Beffa in view of Henry et al. U.S. Patent 5,889,679.
3. Claims 21, 22, 24, 9, 11, 12, 13, 19, 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Objections

4. Claim 21 is objected to because of the following informalities: The last limitation, in part, reads “may only by ...” The word “by” is grammatically incorrect in this context. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2113

6. Claim 23 recites the limitation "the resource status register" in the fourth limitation.

There is insufficient antecedent basis for this limitation in the claim. The register language was removed in the current amendment

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 23,16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robbins et al. U.S. Patent 6,067,633 in view of Beffa U.S. Patent 6,703,573.

As per claim 23, Robbins teaches a method of selling a partially defective processor integrated circuit comprising the steps of: providing a plurality of functional units on the integrated circuit (column 2, lines 20-25); providing a resource status bit associated with each functional unit wherein each functional unit of the plurality of functional units may be marked with status selected from the group consisting of enabled and disabled (column 5, lines 42-65), testing an integrated circuit to determine which functional units are defective (column 2, lines 20-42); programming the resource status register to mark defective functional units as disabled and remaining functional units as enabled (column 5, lines 42-65); ; packaging the integrated circuit; and selling the integrated circuit as capable of performance appropriate for the bin into which it was classified (column 3, lines 44-57). Robbins does not explicitly teach determining a

Art Unit: 2113

remaining performance by lookup in a performance table to classify the integrated circuit into bins according to performance available with the enabled functional units, the performance table having been prepared based upon benchmark results; packaging the integrated circuit. Beffa does teach determining a remaining performance by lookup in a performance table to classify the integrated circuit into bins according to performance available with the enabled functional units, the performance table having been prepared based upon benchmark results (column 7, lines 9-21; wherein, a table is interpreted to be an equivalent in the inherent database sorting structure that Beffa must use to keep track of the IC standards for each sorted IC). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the performance sorting structure of Beffa to the process of Robbins. One of ordinary skill would have been motivated to combine the performance sorting structure of Beffa to the process of Robbins because Beffa teaches the benefit of sorting the IC's according to performance for selling to customers with a reduced need (column 2, lines 46-61; column 7, lines 56-62); an explicit desire of Robbins (column 3, lines 51-57).

As per claim 16, Robbins teaches the method of claim 23, wherein the functional units include a plurality of integer execution units and a plurality of floating point execution units (column 1, lines 7-10, wherein, an integer execution unit (ALU) and a floating point execution unit is inherent in each processing unit of the multiprocessing unit chip).

9. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robbins in view of Beffa in view of Henry et al. U.S. Patent 5,889,679.

As per claim 17, Robbins in view of Beffa teaches the method of claim 23, Robbins does not teach wherein the resource status bits are set according to results of built in self test upon powerup of each functional unit. Henry does teach wherein the resource status bits are set according to results of built in self test upon powerup of each functional unit (column 4, lines 23-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the BIST of Henry in the manufacturing process of Robbins. One of ordinary skill in the art would have been motivated to use the BIST of Henry in the manufacturing process of Robbins because Henry teaches the reading of the register status bits as to provide the modification needed after the unit has been powered; this is an explicit desire of Robbins in the testing of the unit in the initial stages of development (column 8, lines 54-64).

As per claim 18, Robbins in view of Beffa teaches the method of Claim 23, Robbins does not teach wherein the resource status bits are implemented in a programmable read-only memory, and wherein the programmable read-only memory is programmed prior to sale. Henry does teach wherein the resource status bits are implemented in a programmable read-only memory, and wherein the programmable read-only memory is programmed prior to sale (column 4, lines 47-49; column 6, lines 30-34). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the register programming of Henry in the control logic circuit of Robbins. One of ordinary skill in the art would have been motivated to use the register programming of Henry in the control logic circuit of Robbins because Henry teaches using the register as a feature control register which configures the functional blocks as enabled or disabled and programming so before shipping; an explicit desire taught by Robbins (column 5, lines 29-31; column 3, lines 44-57).

Allowable Subject Matter

10. Claims 21, 22, 24, 9, 11, 12, 13, 19, 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

11. Applicant's arguments filed 6/29/05 have been fully considered but they are not persuasive.

12. With respect to claim 17, the applicant has argued that Henry does not teach the claim language of the results being of a built in self test upon powerup. The examiner respectfully disagrees. Henry does teach in column 4, lines 23-28 that the control unit of the processor reads the fuse array and stores a value within the control register for enabling/disabling a function block upon powerup. The examiner broadly interprets this teaching as fulfilling the claim language in that upon powerup, the control unit self checks(tests) the processor fuse array to look for values of enabling/disabling a functional unit that it then sets accordingly. Since all these components are within the same processor unit (drawing 3), it is interpreted as built in.

13. As per claim 18, the applicant has argued that Microsoft does not properly teach the claim language of the branch prediction unit. The examiner contends that this language is not present in claim 18.

In view of the above arguments, all applicable rejected claims stand.

Art Unit: 2113

14. Applicant's arguments with respect to claim 23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. McCarthy whose telephone number is (571)272-3651. The examiner can normally be reached on M-F, 9 - 5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571)272-3645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2113

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

csm

August 22, 2005


ROBERT BEAUSOLIEL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100